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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,783	09/27/2000	JEAN-PIERRE LARDY		6965

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EXAMINER

GORT, ELAINE L

ART UNIT PAPER NUMBER

3627

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,783

Applicant(s)

LARDY ET AL.

Examiner

Elaine Gort

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 24-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-23, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/19/05 has been entered.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-23, 28 and 29 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The basis of this rejection is set forth in a two-prong test:

- (1) The invention must be within the technological arts; and
- (2) The invention must produce a useful, concrete, and tangible result.

NOTE: Prong (1) requires the claimed invention to be within the technological arts. See *In re Musgrave*, 431 F.2d 882, 167 USPQ 280, 289-90 (C.C.P.A. 1970); and *In re Johnston*, 502 F.2d 765, 183 USPQ 172, 177 (C.C.P.A. 1974). Mere abstract ideas (*i.e.*, laws of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" and are therefore non-statutory subject matter.

For a method or process, the claimed method or process must somehow apply, involve, use, or advance the technological arts. Mere intended or nominal use of a component-albeit within the technological arts-does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. In other words, if the invention in the body of the claim is not tied to a technological art, environment, or machine, the claim is non-statutory. *Ex parte Bowman*, 61 USPQ2d 1665, 1671 (B.P.A.I. 2001) (Unpublished). See also MPEP §2106 IV B. 2 (b) ii). The Examiner recommends (by way of example only) positive recitation of a computer or other technology within the body of the claim if the specification supports such an amendment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-23, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irving et al. (US Patent 5,991,743) in view of Kealhofer (US Patent 6,078,903) and Shumway.

Irving et al. discloses the claimed method for determining a company's expected default rate but is silent regarding what the specific risk factors are that are utilized in

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determining a company's default rate and Irving et al. is further silent regarding the default rating being in the form of a probability of default.

Shumway discloses that it is old and well known in the art of default forecasting to use factors reflecting volatility of shares in the company (such as "idiosyncratic standard deviation of stock returns"), price of the shares of the company (such as "market equity"), and debt per share of the shares in the company (such as "total liabilities") to forecast bankruptcy more accurately (for example see title, abstract and page 16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method of Irving et al. with the use of the specific risk factors including factors reflecting volatility of shares, price of the shares and debt per share as taught by Shumway, in order to more accurately forecast bankruptcy.

Kealhofer discloses that it is known in the art to provide a probability of default to provide individuals with quantitative information to predict successful payment and the expected default rate (column 3, lines 53+).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method, as modified above, with the determining of a probability format as taught by Kealhofer, in order to provide the rating in a numeric probability format.

Irving et al. discloses a method for determining a company's likelihood of no default utilizing an equation "substantially" in the form as claimed (Examiner broadly construes the word substantially to mean "relating to" as found in the Merriam Webster's Collegiate Dictionary 10th Edition, 1996) including:

expected debt recovery fraction and deviation of the expected debt recovery (system tracks historical risk ratings including predetermined risk categories which incorporate expected debt recovery, column 3, line 29);

and determines the company's rating for default based on the above factors (such as when the system creates a report including a risk rating).

Regarding the calculation of the standard deviation of price, debt per share, and expected debt recovery, it is notoriously old and well known in the art of probability forecasting to use the standard deviation which indicates the way in which a probability function is centered around its mean, to indicate a measure of dispersion and variability and it would have been obvious to utilize the variation of price and expected debt recovery to indicate the stability of these factors that directly relate or indicate the company's strength.

Response to Arguments

6. Applicant's arguments filed 11/18/04 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1-23, 28 and 29 have been considered but are moot in view of the new ground(s) of rejection. See above for clarification.

Applicant has overcome the 101 rejection regarding performance of a concrete, useful or tangible result, but continues to not have overcome the 101 technological art

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requirement rejection. Examiner has provided further detail above under the 101 rejection.

Applicant has argued that Irving does not disclose using stock prices in determining risk exposure. Examiner contends that Irving does disclose the use of stock prices in column 2 line 56+ while it also discusses in column 1 lines 46+ that risk factors include financial health which among other factors can be indicated by share price and volatility of share price.

Applicant has argued that the combination does not teach using equations in "substantially" the form as provided in the claim. Examiner continues to construe the term "substantially" to mean "relating to" (as found in the Merriam Webster's Collegiate Dictionary 10th Edition, 1996) and thus the analysis and calculations performed by Irving et al. and as modified above, which are not disclosed in detail, to incorporate factors which "relate to" those in the claimed equation and thus the combination of Irving, Kealhofer and Shumway disclose the use of equations "substantially" in the form as claimed. See also column 4, lines 15+ of Irving which discusses the use of formulas.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Covel discloses the use of stock price and liabilities in determining projected default rates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elaine Gort whose telephone number is (703)308-6391. The examiner can normally be reached on Monday through Thursday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski, can be reached at (703)308-5183. The fax phone number for the organization where this application or processing is assigned is (703)872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.

A handwritten signature in black ink, appearing to be 'EG' followed by a stylized flourish.

Elaine Gort
Examiner, Art Unit 3627

March 24 2005